

CLAIM AMENDMENTS:

1. (withdrawn) A connector, comprising:

first and second housings (20, 10) connectable with each other along a connecting direction (CD);

a movable member (40) with a cam (44), the movable member (44) being movable on the first housing (20) in a moving direction (PD) intersecting the connecting direction (CD);

a mating cam (17) on the second housing (10) and engageable with the cam (44), the mating cam (17) being displaced with respect to the cam (44) during a period from an initial stage of connection of the housings (10, 20) substantially to a completion of the connection as the movable member (40) is moved for connecting and separating the housings (10, 20); and

a holding mechanism (18, 48; 19, 69) spaced from a position where the mating cam (17) engages the cam (44) and configured for locking the second housing (10) to one of the first housing (20) and the movable member (40) during a time between an intermediate stage of the connection of the housings (10, 20) substantially to the completion of the connection.

2. (withdrawn) The connector of claim 1, wherein the cam (44) is a main cam groove (44) and the mating cam (17) is a main follower pin (17), the holding mechanism (18, 48; 19, 69) comprising an auxiliary follower pin (18; 19) at a location on the second housing (10) spaced from the main follower pin (17) and an auxiliary cam groove (48; 68) on the movable member (40) at a location for engaging the auxiliary follower pin (18; 19) between an intermediate stage of the connection of the housings (10, 20) and the completion of the connection.

3. (withdrawn) The connector of claim 2, wherein the auxiliary cam groove (48; 68) is arranged to at least partly overlap the main cam groove (44) with respect to the moving direction (PD) of the slider.

4. (previously presented) A connector, comprising:
a housing connectable with a mating housing along a connecting direction, the mating housing being formed with at least one follower pin;

a movable member having a front side facing in the connecting direction and an opposite rear side facing away from the connecting direction, the movable member being formed with at least one cam groove having a starting end on the front side of the movable member and a terminus end between the front and rear sides of the movable member, the movable member being mounted to the housing for movement in an operating direction intersecting the connecting direction of the housings, the cam groove being engageable with the follower pin on the mating housing and being formed such that the follower pin is displaced from the starting end to the terminus end of the cam groove as the movable member is moved in the operating direction for moving the housings to a properly connected state; and

the cam groove further comprises an inclined portion extending from the starting end towards the rear side of the movable member at an acute angle to both the operating direction and the connecting direction and a returning portion extending back towards the front side of the movable member at an acute angle to both the operating direction and the connecting direction and continuing to the terminus end of the cam groove to displace the housings in separating directions as the follower pin is moved toward the terminus end in the cam groove.

Claims 5 and 6 (canceled).

7. (previously presented) The connector of claim 4, wherein the cam groove comprises a peak between the inclined portion and the returning portion, the peak defining a portion of the cam groove closest to the rear side of the movable member.

8. (previously presented) The connector of claim 4, wherein an angle of inclination of a front edge of the returning portion is in a range from about 10° to about 5° to the operating direction of the movable member.

9. (previously presented) A connector assembly, comprising:
a housing and a mating housing that are connectable along a connecting direction, the mating housing being formed with at least one follower pin;

a movable member having a front side facing in the connecting direction and an opposite rear side facing away from the connecting direction, the movable member being formed with at least one cam groove having a starting end on the front side of the movable member and a terminus end between the front and rear sides of the movable member, the movable member being mounted to the housing for movement in an operating direction intersecting the connecting direction of the housings, the cam groove being engageable with the follower pin on the mating housing and being formed such that the follower pin is displaced from the starting end to the terminus end of the cam groove as the movable member is moved in the operating direction for moving the housings to a properly connected state; and

the cam groove further comprises an inclined portion extending from the starting end towards the rear side of the movable member at an acute angle to both the operating direction and the connecting direction and a returning portion extending back towards the front side of the movable member at an acute angle to both the operating direction and the connecting direction and continuing to the terminus end of the cam

groove to displace the housings in separating directions as the follower pin is moved toward the terminus end in the cam groove.

10. (previously presented) The connector assembly of claim 9, further comprising means for generating biasing forces between the housings to separate the housings before the housings are connected properly.

11. (previously presented) The connector assembly of claim 9, further comprising at least one resilient seal configured for airtight sealing of an inner space between the housings in the properly connected state of the housings and configured for urging the housings away from one another when the follower pin aligns with the returning portion of the cam groove, whereby the resilient seal urges the follower pin to the terminus end of the cam groove.

12. (previously presented) The connector assembly of claim 11, wherein an inner pressure of the inner space gradually increases to create biasing forces acting on the housings in separating directions as the housings are brought closer to each other.

13. (previously presented) The connector assembly of claim 12, wherein when the follower pin has reached the returning portion, the biasing forces brought about by the inner pressure between the housings urge the housings in separating directions to pull the operable member, so that resistance acting on the operable member suddenly decreases and the movable member is moved to the advanced position with an addition of an inertial force.